

Application Number

Application/Control No.

10/007,899

Examiner

Tse Chen

Applicant(s)/Patent under
Reexamination

TURNER ET AL.

Art Unit

2116



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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.



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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

MAILED

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Technology Center 2100

Application Number: 10/007,899
Filing Date: November 05, 2001
Appellant(s): TURNER ET AL.

Steven H. Noll
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed April 12, 2007 appealing from the Office action mailed September 20, 2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5650974	YOSHIMURA	7-1997
6073085	WILEY	6-2000
5128552	FANG	7-1992
WO 99/48055	NACLERIO	9-1999

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 5-11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naclerio, PCT Publication WO9948055, in view of Yoshimura, US Patent 5650974.

3. Naclerio discloses an electronic device [psd] comprising [fig.1]:

- A security region [within secure housing] containing a plurality of security components [e.g., ram 14], said security region being surrounded by a mechanical security barrier [secure housing] to normally preclude physical access to said security components [pg.1, ll.24-26].
- A power source [21] adapted for connection to a means voltage [external power] for normally supplying power to said security components [pg.5, ll.3-4].
- A first battery [15] disposed in said security region with physical access to said first battery also being normally precluded in said security barrier.

4. Naclerio did not discuss a second battery.

5. Yoshimura discloses an electronic device [10] comprising [fig.1]:

- A [security] region [fig.5; col.2, ll.13-31; col.8, ll.45-63; 3, 10a, and bat 2 resides in not-normally-accessible "security" region to avoid replacement functions, in contrast to bat 1

that resides outside of “security” region that is provided with replacement accommodation such as battery holder] containing a plurality of security components [col.1, ll.16-25; memory 3 and associated components store personal data securely to prevent loss due to power disruptions].

- A power source [101] adapted for connection to a means voltage [external power supply vcc] for normally supplying power to said security components [col.9, ll.18-22].
- A first battery [bat 2] disposed in said security region [col.2, ll.13-31; col.8, ll.45-63; bat 2 does not require a battery holder outside of security region as bat 2 is rechargeable within security region].
- A second battery [bat 1] disposed outside of said security region [col.2, ll.13-31; col.8, ll.45-63; bat 1 outside of security region in order to be accessed and replaced via battery holder] for supplying power to said security components upon an outage of said mains voltage [col.10, ll.45-51].
- A battery switchover device [10a] having a first input connected to said first battery and a second input connected to said second battery for switching power supply to said security components from said second battery to said first battery only if power from said second battery is absent [col.9, l.50 – col.10, l.24; col.10, l.51 – col.11, l.11].
- A monitoring unit [11] disposed in said security region and connected to said battery switchover device for evaluating voltage information associated with at least one of a voltage of said first battery and a voltage of said second battery [col.9, l.50 – col.10, l.16].

6. It would have been obvious to one of ordinary skill in the art, having the teachings of Naclerio and Yoshimura before him at the time the invention was made, to modify the electronic device of Naclerio to include the second battery associated with rechargeable teachings of Yoshimura [rechargeable bat 2 of Yoshimura analogous to 15 of Naclerio that operates to prevent data loss], in order to further extend the life of the battery residing in the not-normally-accessible security region and thus, reduce the overall hassle associated with replacing a hard-to-access component. The configuration with the second battery as taught by Yoshimura is necessary to alleviate negative effects such as aging and environment associated with the rechargeable battery in order to further extend the life of the rechargeable battery residing in the not-normally-accessible security region [i.e., life of battery is extended partly through recharges and partly through the reduction in the number of recharges]. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to further extend the life of a battery that is not normally accessed while preventing data loss [Yoshimura: col.2, ll.13-31; col.5, ll.43-55].

7. As to claim 5, Yoshimura discloses the battery switchover device that has an output [8] connected to components [memory 3] for supplying power thereto via said battery switchover device from one of said first power source and said second power source, and wherein said device further comprises, in said security region, decoupling elements [e.g., sw 1, 2] at said output.

8. As to claim 6, Yoshimura discloses the decoupling elements that are selected from the group consisting of diodes [e.g., sw1] and controlled electronic switches [e.g., sw2].

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9. As to claim 7, Naclerio discloses the electronic device comprising a security module [secure housing] containing a monitoring unit [diodes] and said security components and protected by said mechanical barrier [fig.1].

10. As to claim 8, Yoshimura discloses the security module that comprises the battery switchover device [col.1, ll.22-25; 10 sans battery holder integrated as a card].

11. As to claim 9, Yoshimura discloses a battery compartment [27a] for said second battery, closeable with a battery compartment cover [27] [fig.5].

12. As to claim 10, Yoshimura discloses having a housing [of card] containing said security region and said battery compartment, and having a sidewall in which said battery compartment cover is disposed [fig.5; col.1, ll.22-25; 27 inserted into sidewall of card].

13. As to claim 11, Yoshimura discloses having a housing [of card] containing said security region and said battery compartment, and having a base in which said battery compartment cover is disposed [fig.5; col.1, ll.22-25; 27 inserted through base of card].

14. As to claim 14, Naclerio discloses, wherein said security module is a postal security device [abstract].

15. Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naclerio and Yoshimura as applied to claim 1 above, and further in view of Wiley et al., U.S. Patent 6073085, hereinafter Wiley.

16. In re claims 2-3, Naclerio and Yoshimura discloses each and every limitation of the claim as disclosed above in reference to claim 1. Naclerio and Yoshimura did not disclose expressly an analog-to-digital converter for converting voltage information into digital information and the details of the monitoring unit.

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17. As to claim 2, Wiley discloses an electronic device [electronic unit 50] comprising:

- A monitoring unit [CPU 111, battery circuit 131, A/D converter 115, etc.] that comprises an analog-to-digital converter [A/D converter 115] for converting said voltage information into digital information [col.5, ll.18-29].

18. It would have been obvious to one of ordinary skill in the art, having the teachings of Wiley, Naclerio and Yoshimura before him at the time the invention was made, to use the analog-to-digital converter taught by Wiley with the electronic device disclosed by Naclerio and Yoshimura as the analog-to-digital converter taught by Wiley is a well known component suitable for use with the electronic device of Naclerio and Yoshimura. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to monitor the voltage of batteries [Wiley: col.5, ll.18-29] in order to know the status of batteries.

19. As to claim 3, Wiley discloses an electronic device [electronic unit 50] comprising:

- The monitoring unit that comprises a processor [CPU 111] supplied with digital information for evaluating the digital information to generate a signal indicating a supply status [table 1; service errors] representative of voltage information, and an externally visible indicator [display 117 with display processor 116] connected to said processor for receiving said status signal therefrom and for displaying a visual indication of said supply status [col.5, ll.40-54; col.6, ll.29-46; col.8, l.66 – col.9, l.12; col.9, ll.34-57; col.15, ll.53-65].

20. It would have been obvious to one of ordinary skill in the art, having the teachings of Wiley, Naclerio and Yoshimura before him at the time the invention was made, to modify the electronic device taught by Naclerio and Yoshimura to include the monitoring unit taught by

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Wiley, in order to obtain the electronic device comprising the monitoring unit that that comprises a processor supplied with digital information for evaluating the digital information to generate a signal indicating a supply status representative of voltage information, and an externally visible indicator connected to said processor for receiving said status signal therefrom and for displaying a visual indication of said supply status. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to ensure an electronic device is in good working order [Wiley: col.1, l.14 – col.2, l.40].

21. Claims 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naclerio and Yoshimura as applied to claim 1 above, and further in view of Fang et al., U.S. Patent 5128552, hereinafter Fang.

22. In re claim 12, Naclerio and Yoshimura disclose each and every limitation of the claim as disclosed above in reference to claim 1. Naclerio and Yoshimura did not discuss details of processing operations.

23. Fang discloses an electronic device [fig.1] comprising:

- A plurality of operating components [component 25; col.5, ll.25-38], and wherein a monitoring unit [25, 16] includes a processor [25d] for evaluating voltage information [col.7, ll.13-31], and wherein said processor is connected to at least one of said operating components and alters operation of said at least one of said operating components if said voltage information indicates an unperformed need to replace a second battery [backup battery 22] [col.6, ll.7-58; col.7, ll.13-31; col.7, l.49 – col.8, l.8].

24. It would have been obvious to one of ordinary skill in the art, having the teachings of Fang, Naclerio and Yoshimura before him at the time the invention was made, to modify the

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electronic device taught by Naclerio and Yoshimura to include the monitoring unit taught by Fang, in order to obtain the monitoring unit that includes a processor for evaluating voltage information, and wherein said processor is connected to at least one of said operating components and alters operation of said at least one of said operating components if said voltage information indicates an unperformed need to replace a second battery. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to conserve battery power [Fang: col.3, ll.1-13; col.4, ll.11-13].

25. As to claim 13, Fang discloses the processor that prevents operation of said at least one operating component after a predetermined delay [T3] if said voltage information indicates an unperformed need to replace said second battery [col.6, ll.30-58].

(10) Response to Argument

A. Rejection of Claims 1, 5-11 and 14 Under 35 U.S.C. §103(a) Based on Naclerio and Yoshimura

Appellant argues that the

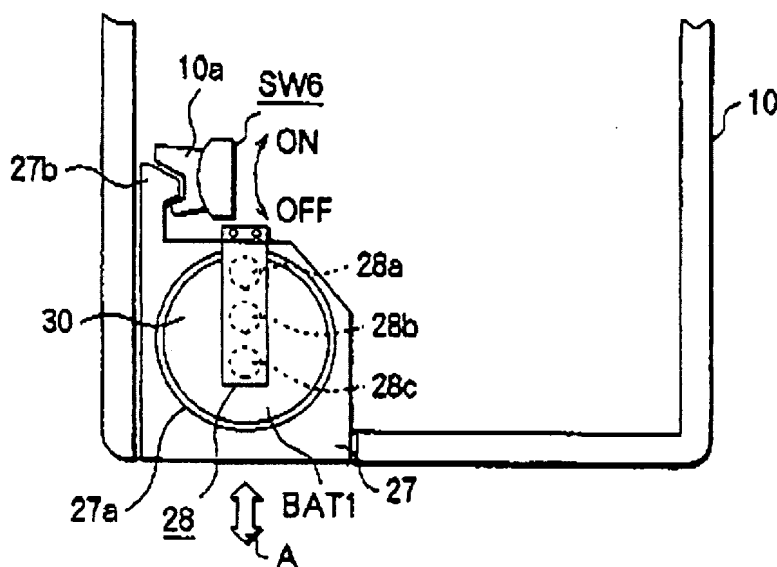
“Naclerio reference discloses a tamper-resistant postal security device that addresses the same problem as the claims on appeal, namely extending the life of the internal back-up battery, but the solution disclosed in the Naclerio reference is based on a completely different concept (reducing the amount of data that must be backed up) compared to the subject matter of the claims on appeal (providing an additional back-up battery outside of the secured region). In general, it is the position of the Appellants that since the Naclerio reference already provides a solution to this problem, a person of ordinary skill in this technology would have no reason to modify the Naclerio reference in order to provide another solution to the problem that is already solved in the Naclerio reference, in a different manner...”

Examiner agrees that Naclerio discloses a tamper-resistant postal security device that extends the life of the internal back-up battery. However, Examiner disagrees with Appellant’s

position that a person of ordinary skill in this technology would have no reason to further improve on the solution as the following details.

Firstly, Examiner submits that Naclerio's first battery is within the *tamper-resistant* postal security device. In other words, the internal first battery is within the security region that is NOT normally accessible [i.e., tamper-resistant] – it would be difficult to replace this internal first battery. Therefore, Naclerio came up with the solution of extending the battery life of the internal battery by minimizing the amount of data that must be backed up, and thereby reducing the drain on the internal battery. However, Naclerio did not declare this solution to be the one and only solution and did not preclude any further possible improvements.

Secondly, Examiner submits that Yoshimura's teachings improve, without any preclusion, on Naclerio's solution by further extending the life of the internal first battery. The following depicts figure 5 of Yoshimura that illustrates a second battery [BAT1] in a more convenient location for replacement:



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In essence, Yoshimura's invention is similar to the calculators that have an easily accessible outside compartment where the batteries are plugged/replaced. Similar to Naclerio, Yoshimura also has an internal first battery [BAT2] that would be difficult to access [i.e., inside the casing]. In order to extend the battery life of the internal first battery, Yoshimura came up with the solution of using the more accessible second battery [BAT1] as the main battery so that the life of internal first battery can be extended [col.2, ll.24-29; i.e., internal first battery used as seldom as possible].

Accordingly, Examiner submits that Yoshimura's solution does not detract from Naclerio's teachings, but actually adds to Naclerio's solution by further extending the life of internal first battery. In effect, implementing the configuration with the second battery as taught by Yoshimura would alleviate negative effects such as aging and environment associated with recharging the internal first battery and further extend the life of the internal first battery residing in the not-normally-accessible security region [i.e., life of battery is extended partly through recharges and partly through the reduction in the number of recharges].

Appellant generally argues that the claims define a patentable invention just because Naclerio solves the same problem in a different way, without specifically pointing out how the language of the claims patentably distinguishes them from references. Examiner notes that Appellant avoids mentioning the fact that Yoshimura actually solves the same problem in the same way as the Appellant. In any case, Examiner submits that Naclerio's and Yoshimura's combined teachings disclose each and every limitation of the claim.

Appellant also argues that Naclerio "teaches away from the use of another back-up battery outside of the security device, and instead makes use of a much smaller memory that is

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backed up by... the internal battery in the security device”. Examiner was not able to find any teachings in Naclerio that prohibit the use of another back-up battery outside of the security device.

Appellant retreats to arguing “Examiner characterized the Yoshimura memory device as having a ‘security region’ on the basis that BAT2 is normally not accessible for replacement”. This argument completely ignores the fact that Yoshimura actually solves the same problem in the same way as the Appellant. Examiner submits that the rejections were based on a combination of Naclerio and Yoshimura, wherein Naclerio discloses the particular claimed security region [i.e., security not enclosed in quotes – see rejection].

Appellant admits that “battery holder shown in Figure 5 of Yoshimura requires some minor manual manipulation in order to replace BAT1, [access] is not precluded, as required in claim 1, and if access were truly precluded this would destroy the intended operation of the Yoshimura circuit, since it is clearly necessary to replace BAT1 from time-to-time, although admittedly this replacement is intended to be infrequent. The fact that the battery holder or compartment for BAT1 in the Yoshimura reference does not preclude access is clearly described at column 13, line 66 through column 14, line 19 of that reference.” Examiner agrees with Appellant’s admission that Yoshimura does disclose the second battery [BAT1] disposed outside of the “security” region in order to have easier replacements from time-to-time; thus, extending the life of the internal first battery [BAT2].

Appellant argues that “both BAT1 and BAT2 in the Yoshimura reference, on which the Examiner relied as corresponding to the first and second batteries of claim 1 of the present application, are disposed in the same region of the Yoshimura device. There is no significant

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difference regarding access to either of the BAT1 or BAT2; either of those batteries can be easily replaced without any difficulty, unlike the first battery in claim 1 of the present application.”

Examiner disagrees and submits that Yoshimura, read as a whole along with figure 5 reproduced above, clearly encloses the internal first battery [BAT2] in a different region [harder to access] than the second battery [BAT1] that was intended to be more accessible in order to make replacements easier; thus, extending the life of the harder-to-access internal first battery [BAT2].

B. Rejection of Claims 2 and 3 Under 35 U.S.C. §103(a) based on Naclerio,

Yoshimura and Wiley. et al.

Appellant argues that “there is no guidance, inducement or motivation in any of the Naclerio, Yoshimura or Wiley et al. references to modify a combination of Naclerio and Yoshimura in accordance with this isolating teachings of Wiley et al.” without providing any supporting evidence. Examiner submits that one with ordinary skill in the art would find it obvious to implement monitoring operations of power status of batteries and other power supplies [see also Wiley: col.1, 1.14 – col.2, 1.40; col.5, ll.18-29; e.g., most laptops have battery monitoring operations to determine when replacement would be necessary].

C. Rejection of Claims 12 and 13 Under 35 U.S.C. §103(a) Based on Naclerio,

Yoshimura and Fang et al.

Appellant argues that “Fang et al. reference provides no teachings whatsoever regarding the use of multiple batteries, and therefore Appellants do not agree with the Examiner's conclusion that the Fang et al. reference provides any teachings whatsoever to monitor voltage information to determine if and when an unperformed need exists to replace a second battery, in the context that the term "second battery" is used in independent claim 1, from which claim 12

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depends. The same is true with regard to claim 13.” Examiner submits that the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. Clearly, the teachings of Fang to conserve power by altering the power of operating components based on the monitoring of a second battery would have suggested to one with ordinary skill in the art to monitor the status of a replaceable battery.

(11) Related Proceeding(s) Appendix

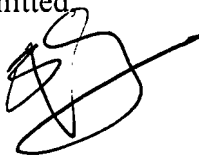
No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner’s answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Tse Chen

June 15, 2007



Conferees:

/Lynne H Browne/
Lynne H Browne
Appeal Practice Specialist, TQAS
Technology Center 2100

Rehana Perveen



REHANA PERVEEN
SUPERVISORY PATENT EXAMINER

7/16/07